

CLAIMS:

1. A method of processing a digital video signal, comprising:
decoding (210) an encoded digital video signal to produce a decoded digital video signal having a progressive scan format at a frame rate of approximately 24 frames/second;
calculating (220) at least one video encoding metric from the encoded digital video signal;
executing a video quality improvement algorithm (230) on the decoded digital video signal having the progressive scan format at the frame rate of approximately 24 frames/second using the calculated video encoding metric, to produce a processed decoded digital video signal having the progressive scan format at the frame rate of approximately 24 frames/second; and
converting (240) the processed decoded digital video signal from the progressive scan format at the frame rate of approximately 24 frames/second format to an interlaced format at one of approximately 50 fields/second or approximately 60 fields/second.
2. The method of claim 1, wherein calculating (220) at least one video encoding metric includes calculating a Unified Metric For Digital Video Processing (UMDVP) value.
3. The method of claim 1, wherein the video encoding metric is calculated using at least one of a quantization parameter or a number of bits employed to code a luminance block of the coded digital video signal.
4. The method of claim 1, wherein converting (240) the processed decoded video signal from the progressive scan format at the frame rate of approximately 24 frames/second format to an interlaced format at approximately 60 fields/second comprises executing a 3:2 pulldown algorithm.

5. The method of claim 1, wherein converting (240) the processed decoded video signal from the progressive scan format at the frame rate of approximately 24 frames/second format to an interlaced format at approximately 50 fields/second comprises executing a 2:2 pulldown algorithm.

6. A method of processing a digital video signal for display on a display device, comprising:

decoding (210) an encoded digital video signal to produce a decoded digital video signal having a video source format;

calculating (220) at least one video encoding metric from the encoded digital video signal;

executing a video quality improvement algorithm (230) on the decoded digital video signal having the video source format using the calculated video encoding metric, to produce a processed decoded digital video signal having the video source format; and

converting (240) the processed decoded digital video signal from the video source format to a video display format suitable for display on the display device.

7. The method of claim 6, where the video source format is progressive scanned at approximately 24 frames/second.

8. The method of claim 6, where the video display format is interlaced at approximately 60 fields/second.

9. The method of claim 6, where the video display format is interlaced at approximately 50 fields/second.

10. The method of claim 6, wherein calculating (220) at least one video encoding metric includes calculating a Unified Metric For Digital Video Processing (UMDVP) value.

11. The method of claim 6, wherein the video encoding metric is calculated using at least one of a quantization parameter or a number of bits employed to code a luminance block of the coded digital video signal.

12. The method of claim 6, wherein converting (240) the processed decoded video signal from the video source format to the video display format comprises executing a 3:2 pulldown algorithm.

13. The method of claim 6, wherein converting (240) the processed decoded video signal from the video source format to the video display format comprises executing a 2:2 pulldown algorithm.

14. A system for processing a digital video signal for display on a display device, comprising:

- a decoder (210) for decoding an encoded digital video signal to produce a decoded digital video signal at a source frame rate;

- a video encoding metric calculation module (220) for calculating a video encoding metric from the encoded digital video signal;

- a post-processor (230) for executing a video quality improvement algorithm on the decoded digital video signal at the source frame rate using the calculated video encoding metric to produce a processed decoded digital video signal; and

- a format converter (240) for converting the processed decoded video signal from the source frame rate to a display frame rate suitable for display on the display device.

15. The system of claim 14, where the video source format is progressive scanned at approximately 24 frames/second.

16. The system of claim 14, where the video display format is interlaced at one of approximately 50 fields/second or approximately 60 fields/second.

17. The system of claim 14, wherein video encoding metric calculation module (220) calculates a Unified Metric For Digital Video Processing (UMDVP) value.

18. The system of claim 14, wherein the extracted coding information includes at least one of a quantization parameter or a number of bits employed to code a luminance block of the coded digital video signal.

19. The system of claim 14, wherein the format converter (240) executes a 3:2 pulldown algorithm.

20. The system of claim 14, wherein the format converter (240) executes a 2:2 pulldown algorithm.